

Claims

1. A nucleic acid molecule encoding a protein having an amino acid sequence given in SEQ ID NO. 2, or a protein with  $\alpha$ -1,6-mannosyltransferase activity having an amino acid  
5 at least 90% homologous to the amino acid sequence of SEQ ID NO. 2.

2. The nucleic acid molecule according to claim 1, wherein the nucleic acid is designated as SEQ ID NO. 1.

3. A protein which is coded by the nucleic acid of  
10 claim 1.

4. A recombinant vector comprising a nucleic acid molecule designated as SEQ ID NO. 1, deposited under accession number KCTC 10583BP.

5. A *Hansenula polymorpha* *Hpoch2* $\Delta$  mutant strain  
15 deposited under accession number KCTC 10584BP.

6. The *Hansenula polymorpha* *Hpoch2* $\Delta$  mutant strain according to claim 5, comprising an expression vector for a sugar chain-modifying enzyme.

7. The *Hansenula polymorpha* *Hpoch2* $\Delta$  mutant strain  
20 according to claim 6, wherein the sugar chain-modifying

enzyme is selected from the group consisting of  $\alpha$ -1,2-mannosidase, mannosidase IA, mannosidase IB, mannosidase IC, mannosidase II, N-acetyl glucosaminyltransferase I, N-acetyl glucosaminyltransferase II, galactosyltransferase, sialyltransferase and fucosyltransferase.

8. A process for producing a recombinant glycoprotein with reduced glycosylation using the *Hansenula polymorpha* *Hpoch2* $\Delta$  mutant strain according to claim 5.

9. The process according to claim 8, wherein the *Hansenula polymorpha* *Hpoch2* $\Delta$  mutant strain comprises an expression vector for a sugar chain-modifying enzyme.

10. The process according to claim 8 or 9, wherein the recombinant glycoprotein is selected from the group consisting of cytokines, clotting factors, growth factors, growth hormone releasing factors, angiostatin, tissue plasminogen activators, plasminogen activator inhibitors, urokinase, *Bacillus amyloliquefaciens*  $\alpha$ -amylase, *Saccharomyces cerevisiae* aspartic protease, *Saccharomyces cerevisiae* invertase, *Typanosoma cruzi* trans-sialidase, HIV envelope protein, haemagglutinin, enterokinase, human  $\alpha_1$ -antitrypsin, human antithrombin III, erythropoietin, herpes virus type-1 glycoprotein and immunoglobulins.

11. A glycoprotein produced by the process of claim 8 or 9.